

The National Academies of
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TRANSPORTATION RESEARCH BOARD



An Overview of the Transportation Research Board

The National Academies



TRANSPORTATION RESEARCH BOARD

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TRB Functions

- Managing Research
- Delivering Policy Analysis & Advice
- Providing Tools for Researchers & Practitioners
- Bringing the Transportation Community Together



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TRB Makeup

- More than 500 Committees and Panels
- More than 7,000 Committee and Panel Members
- Approximately 150 Staff
- \$90+ Million Budget
- More than 200 Publications per Year



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TRB Facilities

Washington, D.C.



National Academy of Sciences Building



Keck Center

Irvine, CA



Arnold and Mabel
Beckman Center

Woods Hole, MA



J. Erik Jonsson
Conference Center



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TRB Organizational Structure



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Technical Activities Division

- 250+ Standing Committees on Almost Every Transportation Mode/Topic
- TRB Annual Meeting
- Specialty Conferences, Workshop and Symposia



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Annual Meeting



Transportation Research Board
96th Annual Meeting

January 8–12, 2017 • Washington, D.C.

- Attracts more than 12,000 transportation professionals from around the world.
- Program covers all transportation modes, with more than 5,000 presentations in nearly 750 sessions and workshops, addressing topics of interest to policy makers, administrators, practitioners, researchers, and representatives of government, industry, and academic institutions.
- A number of sessions and workshops will focus on the spotlight theme for the 2017 meeting: *Transportation Innovation: Leading the Way in an Era of Rapid Change*.



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Cooperative Research Programs

- Highway (1962- \$41 mill.)
- Transit (1992 - \$3 mill)
- Airport (2005 - \$15 mill)
- Hazardous Materials (2007*)
- Freight (2007*)
- Rail (2008*)



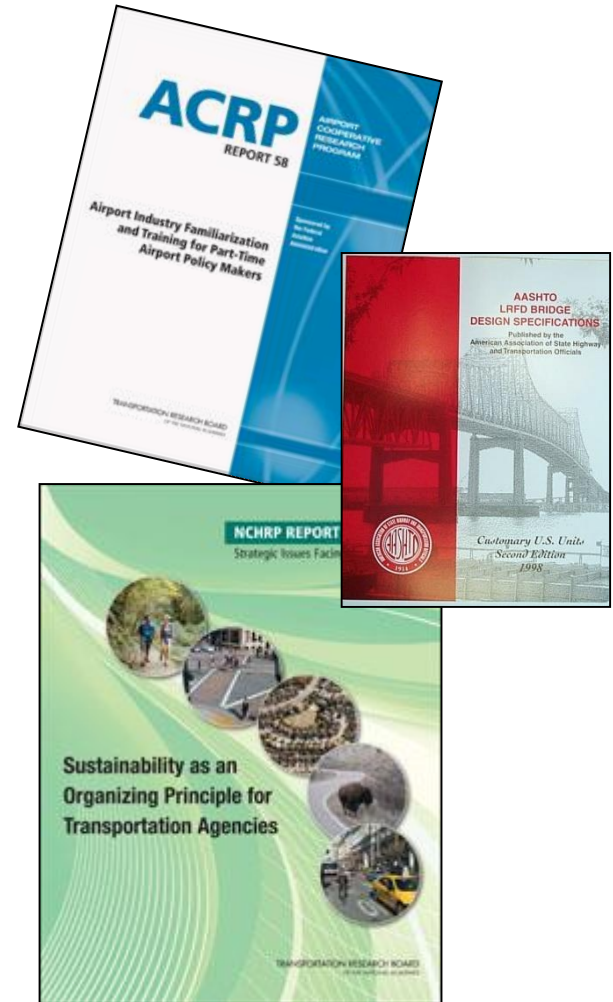
* Program funding has concluded



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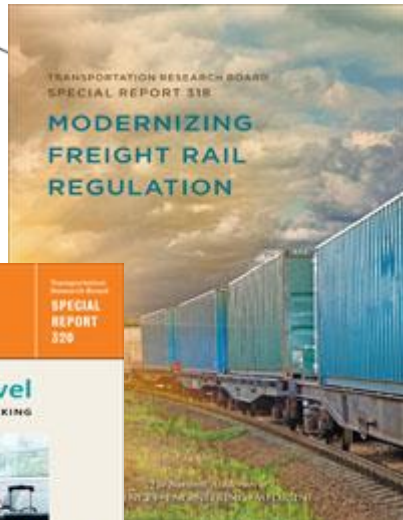
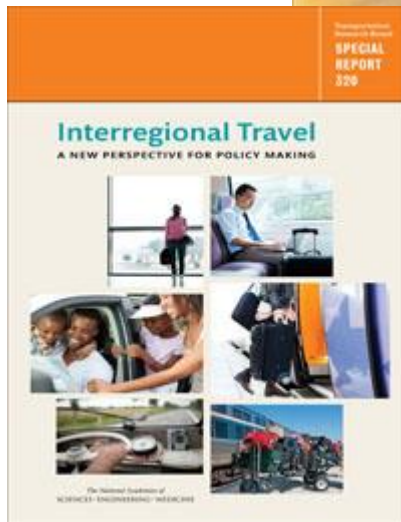
Cooperative Research Programs

- Practitioners select projects
- Emphasis on solving problems; short-term results
- Panels oversee each project
- Consultants, universities conduct research
- 100+ reports published annually are available for FREE download



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Studies & Special Programs



- Conducts policy studies at the request of the U.S. Congress, executive branch agencies, states, and other sponsors
- Produces syntheses of current practices
- Manages Innovations Deserving Exploratory Analysis (IDEA) programs



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Strategic Highway Research Program 2

- Finding strategic solutions to 3 national transportation challenges
 - Improving highway safety
 - Reducing congestion
 - Improving methods for renewing roads & bridges
- Focused on Safety, Renewal, Reliability and Capacity
- 145 research projects with 130 products and 132 research reports



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Reaching Out to our Communities of Practice through TRB Webinars

- 73 webinars in 2015 averaging 400 attendees each and 11 pre-recorded sessions with over 300 views
- 2016 program expanded to 98 webinars and 14 pre-recording sessions
- About 60% of attendees are from state Department of Transportation; about 10% are from Federal agencies
- Webinars have an average 90% audience satisfaction rate
- Webinars can provide attendees and participants with continuing education credits
- Pre-recorded sessions can be accessed on-demand on TRB's website and are ideal for introducing topics to non-traditional audiences.



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TRB Research Databases



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TRID

the TRIS and ITRD database

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Home

TRID is an integrated database that combines the records from TRB's Transportation Research Information Services (TRIS) Database and the OECD's Joint Transport Research Centre's International Transport Research Documentation (ITRD) Database. TRID provides access to more than one million records of transportation research worldwide.

[View a presentation on how to use the TRID Database](#)

[TRID: Leveraging Search Results with Reference Management Tools](#)

Hot Topics:



Public Health

TRID references covering the topic of "public health" in transportation.



Resilience

TRID references covering the topic of "resilience" in transportation.

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TRB Strategic Priority Areas

- Transformational Technologies
- Climate Change and Adaptation
- Resiliency
- Transportation and Public Health



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Transformational Technologies

- Connected and Automated Vehicles
- Shared-use Mobility Services
- Smart Cities and the Internet-of-Things
- Unmanned Aircraft Systems
- NextGen
- Big Data / Cybersecurity
- Alternate Fueled Vehicles



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Transformational Technologies

- \$1.5 million for [NCHRP project 20-102](#) on Impacts of Automated Vehicles on State and Local Transportation Agencies
- NCHRP project to develop a research roadmap for transformational technologies for other than connected/automated vehicles
- [NCHRP legal research digest](#) looking at the legal environment for driverless vehicles.
- TRB Partners in [Research Symposium: Transformational Technologies](#) - on October 31-November 1, 2016, in Detroit, Michigan to help generate research and innovations to enable agencies to meet this challenge. The symposium will lay the foundation for research roadmaps and partnerships.



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Transformational Technologies



[Transportation Research Board](#) > Transformational Technology

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Transformational Technologies



<http://www.trb.org/main/SPOTT.aspx>



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Climate Change and TRB

- Climate Change**
- Home
- TRB Policy Studies
- TRB Reports
- Nat. Academies Reports
- TRR: Journal Papers
- TRB Committees
- TRB Research Projects
- Other Research Projects
- Needed Research
- TRB Meetings
- News



Welcome

Reducing transportation-related emissions of carbon dioxide—the primary greenhouse gas—that contribute to climate change and adapting to the consequences of climate change will be among the biggest public policy challenges facing the transportation profession over the coming decades. This website serves as a gateway to TRB activities and products addressing transportation and climate change.

News and Events

[Climate Change News](#)

Related items from recent TRB E-Newsletters

[Climate Change Meetings](#)

Related meetings sponsored or cosponsored by TRB

Projects and Activities

[TRB Committees](#)

TRB standing committees and task forces

[TRB Research Projects](#)

Related TRB projects from Research in Progress database

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All related projects from the Research in Progress database

[Needed Research](#)

Suggested Projects from TRB's Research Needs Statements database

Publications

[TRB Policy Studies](#)

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[Papers From TRR: Journal \(1996-\)](#)

Papers from the TRB Transportation Research Record: Journal of the Transportation Research Board



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Climate Change and TRB

- 20+ individual TRB Standing Committees engaging the issues directly in all modes through the lenses of Climate Change, Greenhouse Gases, Adaptation, Resilience, Infrastructure and Environmental Issues
- 15 projects underway currently through TRB Cooperative Research in these areas
- More than 20 sessions addressing climate change directly at the 2016 Annual Meeting
- 4 policy studies have been conducted since 2008
- Countless TRR volumes, TRB circulars and other National Academies publications on the subject



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Standing Committees: Climate Change

Climate Change

Special Task Force on Climate Change and Energy
Aviation Climate Change Subcommittee

Energy and Greenhouse Gases

Standing Committee on Transportation Energy
Standing Committee on Freeway Operations
Standing Committee on Managed Lanes
Standing Committee on Visibility
Standing Committee on Railroad Operating Technologies
Standing Committee on Airfield and Airspace Capacity and Delay

Infrastructure Design and Construction

Standing Committee on Landscape and Environmental Design
Standing Committee on Hydrology, Hydraulics and Water Quality
Climate Change, Energy, and Sustainability Impacts on Transportation Infrastructure Subcommittee
Sustainable Pavements Subcommittee
Pavement Materials and the Urban Climate Subcommittee

Environment

Standing Committee on Transportation in the Developing Countries
Standing Committee on Transportation Demand Forecasting
Standing Committee on Environmental Analysis in Transportation
Standing Committee on Alternative Transportation Fuels and Technologies
Standing Committee on Transportation and Sustainability
Standing Committee on Environmental Issues in Transportation Law
Standing Committee on Environmental Impacts of Aviation
Standing Committee on the Marine Environment



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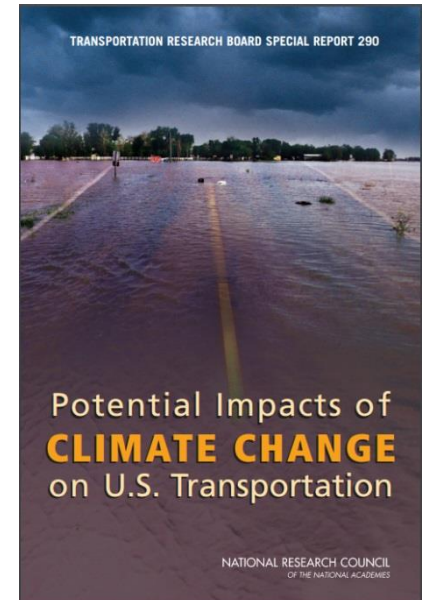
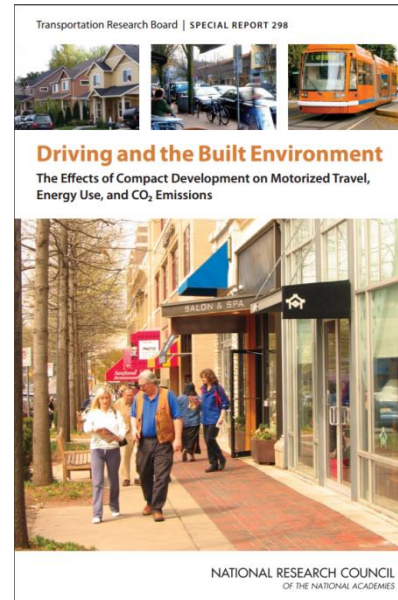
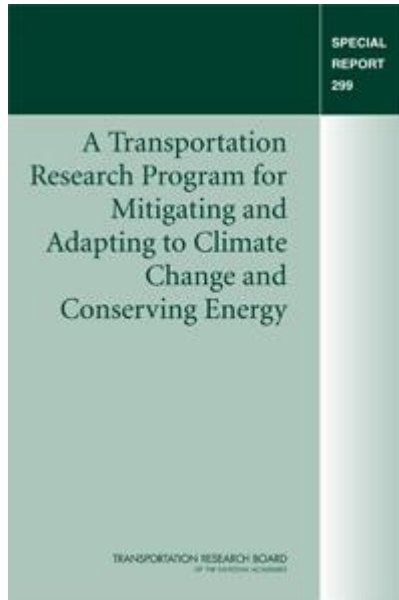
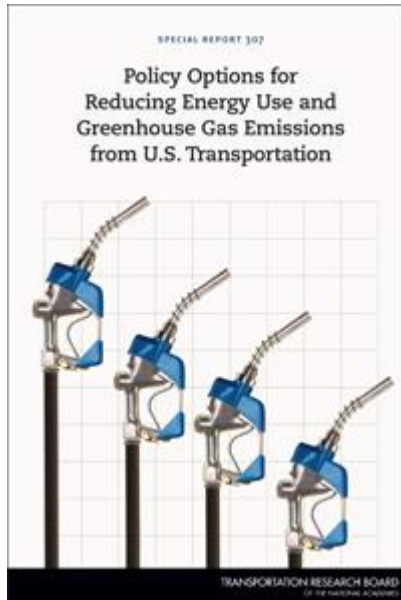
Current Research Panels: Climate Change

- NCHRP Project Panel on Applying Climate Change Information to Hydrologic and Hydraulic Design of Transportation Infrastructure
 - NCHRP Project Panel on Guidelines to Incorporate the Costs and Benefits of Adaptation Measures in Preparation for Extreme Weather Events and Climate Change
 - NCHRP Project Panel on Wind, Solar and Ground-source Energy for Maintenance Area Facilities
 - NCHRP Project Panel on Developing Environmental Performance Measures and a Methodology for Incorporation into Performance Management Programs
-
- ACRP Project Panel on Energy and Environmental Benefits of Electrified Aircraft Taxi Operations
 - ACRP Project Panel on Planning Compatible Renewable Energy Opportunities that Maximize Benefits for Airports
 - ACRP Project Panel on Evaluating Cost-Saving and Energy Reduction Technologies for Escalators and Moving Walks at Airports
 - ACRP Project Panel on Climate Change Adaption Planning: Risk Assessment for Airports
 - ACRP Project Panel on Guidebook of Practices for Improving Environmental Performance at Small Airports
 - ACRP Project Panel on Integrating Airport Sustainability Plans with Environmental Analyses
 - ACRP Project Panel on Guidebook for NEPA and Environmental Reviews at General Aviation Airports



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Policy Studies: Climate Change



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Characterizing Risk in Climate Change Assessments: Proceedings of a Workshop for the U.S. Global Change Research Program

July 26, 2016

The National Academies of Sciences, Engineering, and Medicine has released Characterizing Risk in Climate Change Assessments: Proceedings of a Workshop for the U.S. Global Change Research Program that explores National Climate Assessments (NCAs). The U.S. Global Change Research Program asked the National Academies of Sciences, Engineering, and Medicine to conduct a workshop to explore ways to frame the NCA and subsequent NCA reports in terms of risks to society. The workshop was intended to c...



Trends and Issues in Marine Transportation and the Environment

April 8, 2016

TRB E-Circular 206: Trends and Issues in Marine Transportation and the Environment explores urgent and far-reaching research topics pertinent to marine transportation and environmental issues. Subjects explored in this E-Circular include marine emissions and air quality impacts, including alternative fuels, human health impacts, improving marine vessel emission inventory methods, emission reductions, and exhaust regulations. The report also focuses on supply chains, ecological systems, and cl...



Surface Transportation System Resilience to Climate Change and Extreme Weather Events

March 3, 2016

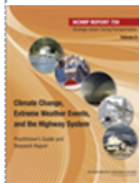
TRB's E-Circular 204: Surface Transportation System Resilience to Climate Change and Extreme Weather Events highlights a September 16–18, 2015 conference and live webcast that convened more than 500 experts from across the world to explore state-of-the-art research and emerging practices and policies on adapting surface transportation networks to the potential impacts of climate change and extreme weather events. This E-Circular explores the plenary sessions and technical discussions in break...



Systems Resilience and Climate Change

October 18, 2015

TRB's Transportation Research Record: Journal of the Transportation Research Board No. 2532 consists of 18 papers that examine resilience and climate change issues, as it relates to transportation, including: Roadmaps for Adaptation Measures of Transportation to Climate Change Resilience Versus Risk: Assessing Cost of Climate Change Adaptation to California's Transportation System and the City of Sacramento, California Barriers to Implementation of Climate Adaptation Frameworks by State Depart...



Strategic Issues Facing Transportation, Volume 2: Climate Change, Extreme Weather Events, and the Highway System: Practitioner's Guide and Research Report

August 31, 2015

TRB's National Cooperative Highway Research Program (NCHRP) Report 750: Strategic Issues Facing Transportation, Volume 2: Climate Change, Extreme Weather Events, and the Highway System: Practitioner's Guide and Research Report provides guidance on adaptation strategies to the likely impacts of climate change through 2050 in the planning, design, construction, operation, and maintenance of infrastructure assets in the United States (and through 2100 for sea-level rise). In addition to the prac...



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TRB Webinar: Integrating Climate Change Resilience into Transportation Asset Management October 13, 2016

<http://www.trb.org/ElectronicSessions/Blurbs/174863.aspx>

TRB Website: Climate Change Issue Portal

<http://www.trb.org/main/SpecialtyPageClimateChange.aspx>



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Promoting Innovation and Progress in Transportation



Transportation practitioners, researchers, public officials, and other professionals need credible, high-quality information and research results to address the transportation challenges of the 21st century.

The Transportation Research Board engages professionals worldwide in a broad range of interdisciplinary, multimodal activities to lay the foundation for innovative transportation solutions. Join us!

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Recent Publications



[Strategies to Optimize Real
Property Acquisition,
Relocation Assistance, and
Property Management
Practices](#)

November 11, 2014



[TRB and Resilience:
A Summary of
Transportation
Research Board
Activities](#)

November 10, 2014



[TRB Security, Emergency
Management, and
Infrastructure Protection
Research Status Report](#)

November 10, 2014



[TR News September –
October 2014:
Transportation in Tribal
Lands: Challenges and](#)



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Thank you for your time and attention

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TRB 96th ANNUAL MEETING: January 8-12, 2017

TRB website: www.TRB.org



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